

DRONOV, A. N. BORODAVCHENKO, P. I.

Set-up for casing shot. Lit. proizv. No 3, 1952.

DRONOV, A. N., and BORODAVCHENKO, P. I.

Castling shot for shot-peening apparatus. Sel'khoz mashina, No 4, 1952.

1. BORODVACHENKO, P. I.; DRONOV, A. N., Engs.
2. USSR (600)
4. Conveying Machinery
7. Moving lumber on a belt conveyor at a great angle, Sel'khoz mashina, No. 10, 1952.

9. Monthly List of Russian Accessions, Library of Congress, February 1953. Unclassified.

DRONOV, A.P.

Checking single-phase meters. Iss. tekhn. no. 2:84 Nr-Ap '57.  
(Electric meters) (MIRA 10:6)

AUTHORS: Dronov, A.P., Sviridov, A.G. and Sobolev, N.N.

SOV/51-5-5-2/23

TITLE: On Measurement of Flame Temperatures by the Method of Relative Intensities of Spectral Lines (Ob izmerenii temperatur plamen metodom otnositel'nykh intensivnostey spektral'nykh liniy)

PERIODICAL: Optika i Spektroskopiya, 1958, Vol 5, Nr 5, pp 490-499 (USSR)

ABSTRACT: In measurement of temperature by the method of relative intensities of spectral lines the following conditions must be satisfied:  
(1) The lines used in measurements should differ by at least 0.5 eV in the energies of their upper levels. (2) The lines chosen for measurements should not be subject to re-absorption. (3) To avoid self-reversal the lines used should not end at ground level. (4) The probabilities of transitions of the lines used should be known fairly accurately. (5) The intensity of the background near the lines used for measurement should be low. Preliminary experiments showed that in acetylene-air and hydrogen-oxygen flames the following lines can be used for measurement of flame temperature: Li at 8126, 6104, 4972, 4603, 4132 Å, and Na at 8195-83, 6160-54, 5688-83, 5154-49, 4983-79, 4669-35 Å. These lines satisfy conditions (1), (2), (3) and (5). To satisfy condition (4), the transition probabilities for

Card 1/5

On Measurement of Flame Temperatures by the Method of Relative Intensities of Spectral Lines

SOV/51-5-5-2/23

these lines were determined by finding their relative intensities in flames and measuring the flame temperature by the method using reversal of spectral lines. Fig 1 gives the apparatus used to produce controlled hydrogen-oxygen flames; 1 and 7 are reducing valves, 2 and 6 are mercury monometers, 3 is an atomizer, 4 is a device for trapping of larger drops of  $\text{LiNO}_3$  and  $\text{NaBr}$  solutions, which are used as sources of Li and Na, 5 is a mixing chamber, 8 is a calibrated capillary and 9 is a burner. The apparatus used for producing acetylene-air flames was described in Ref 9. The flame temperature was measured using reversal of spectral lines. In measurement of temperature of acetylene-air flames the authors used a lamp with a tungsten ribbon as a light standard. Temperature of hydrogen-oxygen flames was measured using a carbon arc as an auxiliary source. The following lines were used for these measurements; Li at  $6707.8 \text{ \AA}$  and Na at  $5890-96 \text{ \AA}$ . The acetylene-air flame temperature was found to be  $2420^\circ\text{K}$  and that of the hydrogen-oxygen flame was found to be  $3080^\circ\text{K}$ . The flame spectra were photographed using an ISP-51 spectrograph. As a check of the results obtained, the line intensities were measured also using a photoelectric set-up shown in Fig 2, where 1 is a light

Card 2/5

SOV/51-5-5-2/23

On Measurement of Flame Temperatures by the Method of Relative Intensities of Spectral Lines

Ref 6-8 agree satisfactorily with the results given in the present paper. The authors attempted also to determine transition probabilities of K, Rb and Cs lines. This attempt has failed because of the strong continuous background produced near these lines when higher concentrations of the appropriate salts are used in acetylene-air and hydrogen-oxygen flames. The authors used the transition probabilities of Na lines given in Table 3, to determine the temperature of a carbon arc, loaded with 50% NaCl + 50% C powder. Simultaneously the arc temperature was measured from the relative intensities of cyanogen lines and by the method of line reversal (5388 & Na line). The cyanogen temperature was 4650°K, the reversal temperature was 3900°K and the temperature obtained from the relative intensities of various Na line pairs varied from 3000-5000°K. This scatter is ascribed to non-uniformity of the arc. It is suggested that, in contrast to arcs, the flame temperatures may be reliably measured using the method of relative intensities of

Card 4/5

SOV/51-5-5-2/23

On Measurement of Flame Temperatures by the Method of Relative Intensities of Spectral Lines

source, 2 a modulator disk, 3 a source of reference voltage, 4 is a spectrograph, 5 a photoelectric receiver consisting of two exit slits and 2 photomultipliers, 6 are amplifying cascades, 7 a synchronous detector and 8 is an end cascade. The transition probabilities of the Li and the Na lines, determined from their relative intensities and flame temperatures, are given in Tables 1 (Na lines) and 2 (Li lines). The 4982 Å Na line and the 6104 Å Li line were used as standards and their transition probabilities were taken to be equal to 1.00. Tables 3 and 4 give the mean experimental values (obtained by the present authors) of the transition probabilities of the Na and Li lines respectively. These values are given in the fourth columns of Tables 3 and 4 and are compared with the experimental values of Key (Ref 5), which are listed in the fifth columns, and with the theoretical values of Refs 6, 7 and 8 which are given in the sixth and later columns. There seems to be no agreement between Key's results and those obtained by the present authors. This may be due to the fact that Key used an arc as his light source. The theoretical values of

Card 3/5



On Measurements of Flame Temperatures by the Method of Relative Intensities of Spectral Lines

307/51-5-5-2/23

spectral lines described in the present paper. There are 3 figures, 4 tables and 14 references, 7 of which are Soviet, 2 Dutch, 1 German, 1 English, 1 translation and 2 American.

SUBMITTED: December 3, 1957

Card 5/5 1. Flames--Temperature 2. Temperature--Measurement 3. Flames  
--Spectra

20770

S/051/61/010/003/002/010  
EO52/E514

26.2011

AUTHORS: Dronov, A. P., Sviridov, A. G. and Sobolev, N.N.  
TITLE: An Investigation of the State of Krypton Behind a Shock-wave  
PERIODICAL: Optika i spektroskopiya, 1961, Vol.10, No.3, pp.312-321  
TEXT: The present work is concerned with the spectroscopic study of krypton behind a shock-wave ( $M = 10-15$ ) and represents an extension of the work reported by V. N. Alyamovskiy and V. F. Kitayeva (Ref.10) and F. S. Fayzulloev, N. N. Sobolev and Ye. M. Kudryavtsev (Ref.11). An attempt has been made to investigate the state of krypton from measurements on hydrogen line emission. The hydrogen was present in the gas under investigation either in the form of the natural impurity or was specially added in small quantities so as not to affect the thermodynamic properties of the gas. The paper begins with a brief calculation of the state of krypton behind a shock-wave. The analysis is based on the laws of conservation of mass, momentum and energy and these are written down in the form

Card 1/9

20770

An Investigation of the State of ... S/051/61/010/003/002/010  
EO32/E514

$$p_1 U_s = p_2 (U_s - u_2), \quad (1)$$

$$p_1 + p_1 U_s^2 = p_2 + p_2 (U_s - u_2)^2, \quad (2)$$

$$H_1 + \frac{1}{2} U_s^2 = H_2 + \frac{1}{2} (U_s - u_2)^2, \quad (3)$$

The further two equations which are necessary are the equation of state of the gas

$$\frac{p_1}{p_2} = (1 + a_1) \frac{RT_1}{p} \quad (4)$$

and the Saha equation

$$\frac{a_1^2}{1 - a_1^2} p_2 = K(T_1). \quad (5)$$

Card 2/9

20770

An Investigation of the State of ... S/051/61/010/003/002/010  
E032/E514

In the above system of equations

$$H = \frac{5}{2} (1 + \alpha) \frac{R}{\mu} T + \frac{N \chi_0}{\mu} \quad A.$$

is the enthalpy per unit mass and

$$K(T_2) = \frac{2g^+}{g_0} k \left( \frac{2\pi m_e k}{h^2} \right)^{\frac{3}{2}} T_2^{\frac{5}{2}} e^{-\frac{\chi_0}{kT_2}} \quad B.$$

The symbols are defined as follows: subscript 1 refers to the gas prior to the passage of the shock-wave, subscript 2 refers to the gas behind the shock-wave,  $p$  is the pressure,  $\rho$  the density,  $U_s$  is the velocity of the shock-wave,  $u_2$  is the velocity of the gas particles,  $\alpha$  is the degree of ionization,  $\chi_0$  is the ionization potential,  $g_0$  is the statistical weight for a neutral atom and  $g^+$  is the statistical weight of an ion. Eqs. (1) to (5) are then reduced to the single equation relating the degree of

Card 3/9

20770

An Investigation of the State of ...

S/051/61/010/003/002/010  
E032/E514

ionization  $\alpha_2$  to the temperature T:

$$\frac{1-\alpha_2^2}{\alpha_2^2} \cdot \frac{1}{p} K - \frac{p_1}{p_1} - 4(1+\alpha_2) \frac{R}{\mu} T_2 - \frac{\alpha_2^2}{1-\alpha_2} \cdot \frac{R}{\mu} T_2 \frac{p_1}{K} -$$

$$- 2\alpha_2 \frac{N\gamma_0}{\mu} + \frac{5RT_1}{\mu} = 0. \quad (6)$$

where N is the Avogadro number and  $\mu$  is the molecular weight. The degree of ionization  $\alpha_0$  can thus be computed for various assumed values of  $T_0$ . Knowing  $T_2$  and  $\alpha_2$  it is then possible to calculate  $p_2$ ,  $\rho_2$  and  $U_S$  from the formulae

$$p_2 = \frac{1-\alpha_2^2}{\alpha_2^2} K. \quad (7)$$

$$\rho_2 = \frac{p_2}{\frac{R}{\mu} T_2 (1+\alpha_2)}. \quad (8)$$

$$U_S = \left( \frac{p_2}{p_1} \frac{p_2 - p_1}{p_2 - p_1} \right)^{\frac{1}{2}}. \quad (9)$$

Card 4/9

20770

An Investigation of the State of ... S/051/61/010/003/002/010  
E032/E514

Having determined  $\alpha_2$ ,  $p_2$ ,  $\rho_2$  and  $U_s$  as functions of  $T_2$ , one can plot graphs of  $T_2$ ,  $\alpha_2$ ,  $p_2$  and  $\rho_2$  as functions of  $U_s$  or  $M = U_s/c_1$ , where  $c_1$  is the velocity of sound in krypton (218 m/sec). The present authors have carried out such calculations using the "Ural" computer and some of the results are shown in Figs. 1 and 2. Fig.1 gives the temperature of the plasma  $T_0$  behind the front of the shock-wave as a function of  $M$  for various values of the initial pressure  $p_1$ . Curves 1 to 6 correspond to the following values of  $p_1$ , respectively: 1.0, 2.0, 5.2, 7.0, 10.0 and 15.0 mm Hg. Fig.2 shows the degree of ionization, the density and the pressure behind the shock-wave front as functions of  $M$  for different values of  $p_1$ . The curves marked 1 to 6 correspond to the same values of  $p_1$  as quoted for Fig.1. In the second part of this work a description is given of the apparatus employed to verify this theory. The apparatus is shown schematically in Fig.3. The temperature was determined from the relative intensity of the  $H_\alpha$  and  $H_\beta$  lines, and the concentration of charged particles was determined from the broadening of these lines. The

Card 5/9

20770

An Investigation of the State of ... S/051/61/010/003/002/010  
E032/E514

concentration was calculated from the formula

$$N_1 = 3.4 \cdot 10^{14} (\Delta\lambda)^{\frac{3}{2}} \quad (11)$$

where  $\Delta\lambda$  is the half-width in angstroms. The experiments showed that the determination of the temperature from the relative width of  $H_\alpha$  and  $H_\beta$  in krypton behind a shock-wave is difficult because of the large width of the  $H_\beta$  line and the presence of a continuous spectrum surrounding this line. Fig.8 shows the experimental points obtained for  $\lg N_1$  as a function of  $M$  (1 -  $H_\alpha$ , 2 -  $H_\beta$ , 3 -  $H_\gamma$  with addition of  $H_2$ , 4 -  $H_\delta$  with addition of  $H_2$ ; continuous curve - theoretical). As can be seen from Fig.8, the agreement between experiment and theory is satisfactory. The experimental data do not differ from the theoretical values by a factor greater than 1.5 to 2. However, most of the experimental points lie below the theoretical curve. This may be due to: a) reduced gas temperature due to the presence of hydrogen and other impurities in krypton and b) neglect of losses by radiation. Acknowledgments

Card 6/9

20770

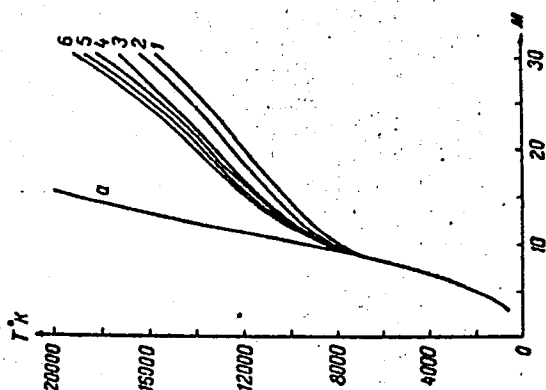
An Investigation of the State of ...

S/051/61/010/003/002/010  
E032/E514

are expressed to G. V. Kazakova for assistance. There are 3 tables,  
8 figures and 14 references: 5 Soviet and 9 non-Soviet..

SUBMITTED: May 13, 1960

Fig.1



Card 7/9

Fig. 1 and 2 on page 244  
of the report

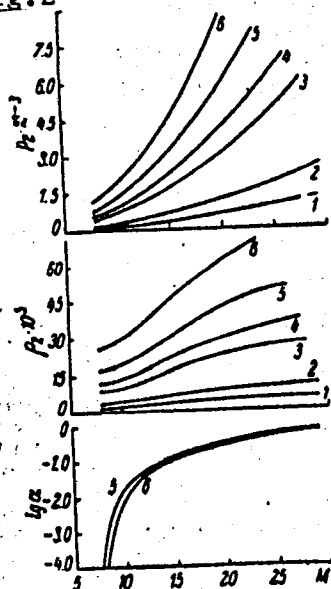


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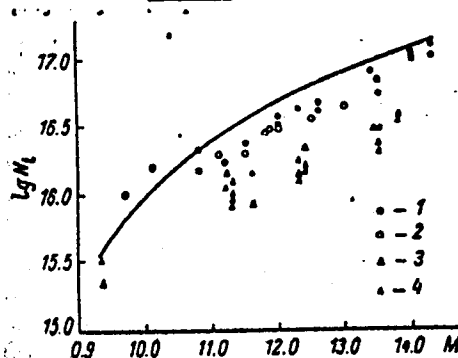
S/051/61/010/003/002/010  
E032/E514

Fig. 2



Card 8/9

Fig. 8

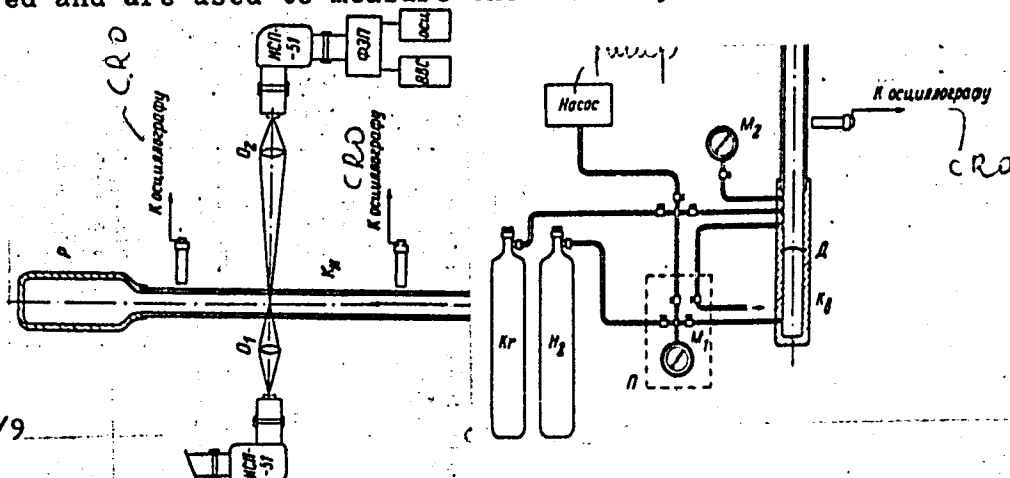


20770

An Investigation of the State of ...

S/051/61/010/003/002/010  
E032/E514

**Fig.3. Legend.** Schematic diagram of the shock-wave apparatus.  
 $K_H$ ,  $K_H$  - high and low pressure chambers,  $\Delta$  - diaphragm, P - receiver,  
 $M_1$  and  $M_2$  - manometers,  $\Pi$  - control panel, Kr and  $H_2$  - krypton and  
hydrogen cylinders,  $O_1$  and  $O_2$  - objectives,  $\Phi\Phi\Pi$  (FEP) - photo-  
electric attachment, BBC - high voltage stabilized source,  $O\Phi\Omega$  (OSTs)  
- double beam oscillograph. Three photomultipliers are also  
indicated and are used to measure the velocity of the shock-wave.



L 15727-63 EPR/EPA(b)/EPF(c)/EWT(1)/EWP(q)/EWT(m)/BDS AFETC/ASD/  
ESD-3/AFWL Ps-4/Pd-4/Pr-4 WW/JD

ACCESSION NR: AR3002666

S/0124/63/000/005/B024/B025

SOURCE: Rzh. Mekhanika, Abs. 5B121

AUTHOR: Alyamovskiy, V.M.; Dronov, A. P.; Kitayeva, V. F.; Sviridov, A. G.;  
Sobolev, N. N.

TITLE: Experimental determination of the concentration of charged particles  
in argon and krypton behind a shock wave

CITED SOURCE: Sb. Vopr. magnitn. gidrodinamiki i dinamiki plazmy. v. 2. Riga,  
AN LatvSSR, 1962, 379-386

TOPIC TAGS: argon, krypton, shock wave, spectroscopy, contour line, electron  
temperature

TRANSLATION: Spectroscopic studies of the states of the inert gases argon and  
krypton behind shock waves were made. The contour lines of hydrogen in  
krypton were studied behind the incident wave; in argon, behind the reflected.  
The hydrogen admixture was about 1-5%. The initial pressure was of the order  
of 0.2-1 mm of mercury. In the argon behind the reflected wave, the calculated

Card 1/2

L 15727-63

ACCESSION NR: AR3002666

temperature was of the order of  $12000-13000^{\circ}$  K. The concentration of electrons was determined by the method of comparison of the experimental contour lines with the theoretical ones, and the temperature was determined using the assumption of thermodynamic equilibrium. Yu.R.

DATE ACQ: 14Jun63

SUB CODE: PH

ENCL: 00

Card 2/2

38526

S/051/62/012/006/003/020  
E032/E314

26.1135

AUTHORS: Dronov, A.P., Sviridov, A.G. and Sobolev, N.N.

TITLE: Continuous emission spectrum of krypton and xenon  
behind a shock wave

PERIODICAL: Optika i spektroskopiya, v. 12, no. 6, 1962,  
677 - 690

TEXT: A review of the work reported by H.E. Patschek et al (Ref. 1 - J. Appl. Phys., 26, 83, 1955) and by W. Roth and P. Gloersen (Ref. 3 - J. Chem. Phys., 29, 820, 1958; Ref. 4 - -do- 1959, 31, 844; Ref. 5 - -do- 1960, 32, 1876; Ref. 6 - Phys. Fluids, 3, 857, 1960) leads the authors to the conclusion that there are at least two mechanisms responsible for the emission of the continuous spectrum in inert gases (recombinational mechanisms of Kramers and Unsold and the radiative transmission mechanism of Roth and Gloersen). The present work was carried out to investigate the spectrum of xenon and krypton behind shock fronts in the Mach-number range 11.5 - 15. The shock waves were produced in a glass tube (Ref. 10 - N.N. Sobolev et al - Optika i spektroskopiya, 10, 312, 1961)

Card 1/2

S/051/62/012/006/003/020

Continuous emission spectrum ....

E032/E314

The velocity of propagation of the shock fronts was measured with the aid of two photomultipliers and the intensity of the emission was determined photo-electrically by comparing it with a standard tungsten strip lamp. The spectrum was examined with the aid of the VCT-51 (ISP-51) and Q-24 spectrographs. The energy distribution in the spectrum and the brightness of the emission was determined for different values of the Mach number. Preliminary results showed that the intensity of the continuous spectrum increased with increasing Mach number, both in absolute magnitude and relative to the line spectrum of the inert gas under investigation. The line and continuous emission behind the shock fronts appear simultaneously. For  $M > 11$  the induction period observed by Roth and Gloersen is absent and the observed emission is developed immediately behind the shock front. The general conclusion is that both the energy distributions and the brightness of the continuous emission is in agreement with the Kramers--Unsold theory for  $M > 11$ . The continuous spectrum is produced as a result of recombination of electrons with ions and the concentration of these particles in these experiments approached the equilibrium values. There are 10 figures and 5 tables.

Submitted: April 8, 1961  
Card 2/2

MITROFANOV, M.G.; MIRSKIY, Ya.V.; DOROGCHINSKIY, A.Z.; DRONIN, A.P.  
MAKAR'YEV, S.V.; LUGOVOY, B.I.

Selecting the best arrangement for separating gasoline fractions  
in molecular sieves. Trudy GrozNII no. 15:84-92 '63.

(MIRA 17:5)

ANTROPOV, Ye.T.; DRONOV, A.P.; SOBOLEV, N.N.; CHEREMISINOV, V.P.[deceased]

Experimental determination of the matrix element of the electron transition in gamma and beta systems of the NO molecule. Dokl. AN SSSR 153 no.1:67-69 N '63.

(MIRA 17:1)

1. Predstavleno akademikom I.V. Obreimovym.



ANTROPOV, Ye.T.; DRONOV, A.P.; SOBOLEV, N.N.

Experimental determination of the matrix element of the dipole moment of an electron transition in the  $\beta$ - and  $\gamma$ -band systems of nitrogen oxide. Part 2. Opt. i spektr. 17 no.5:654-661 N '64.  
(MIRA 17:12)

ACC NR: AP6031953

SOURCE CODE: UR/0051/66/021/003/0267/0274

AUTHOR: Dronov, A. P.; Fayzullov, F. S.; Sobolev, N. N.

ORG: none

413

TITLE: Determination of the electron transfer energy of the first positive band system of nitrogen. I.

SOURCE: Optika i spektroskopiya, v. 21, no. 3, 1966, 267-274

TOPIC TAGS: molecule energy level, nitrogen energy level, molecule band, nitrogen band, electron transfer energy, molecule energy transfer, EXCITED ELECTRON STATE, SHOCK WAVE, BAND SPECTRUM, ELECTRON ENERGY

ABSTRACT: The electron transfer from the first positive band system of the nitrogen molecule, which occurs between the second  $B^3N_g$  and first  $A^3\Sigma_u^+$  excited electron states, was experimentally investigated on an installation based on the measurement of the intensity of radiative emission behind a shock wave. The installation consisted of a specially adapted shock tube, an ISP-51 spectrograph, a three-stage electron-optical converter for photographically recording the spectrum, and a 4-channel DFS-33 diffraction spectrometer for recording the spectrum intensity. The (1, 0) band ( $\lambda = 8912.3 \text{ \AA}$ ) of the positive system of  $N_2$  was photographically recorded and the absolute intensity of the rotation lines belonging to this band was measured by the installation. The article, which is the first part of a larger work, discusses at length the measuring installation, describing its components and characteristics. The

Card 1/2

UDC: 539.194

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ACC NR: AP6031953

measurement results are presented in a photograph taken from the screen of the electron-optical converter showing two spectra—one of a neon lamp with two close, well resolved lines of 8654 and 8634 Å and the other of nitrogen heated by the shock wave to about 8000K. The photograph shows the rotational structure of the band tail of the CN red system. Orig. art. has: 5 figures and 1 formula. [FP]

SUB CODE: 07 / SUBM DATE: 29Mar65/ ORIG REF: 013/ OTH REF: 006/ ATD PRESS: 5090

hs

Card 2/2

ACC NR: AP/000024

SOURCE CODE: UR/0051/66/021/005/0533/0545

AUTHOR: Dronov, A. P.; Sobolev, N. N.; Fayzulloev, F. S.

ORG: none

TITLE: Determination of the strength of the electron transition of the first positive system of nitrogen bands. II

SOURCE: Optika i spektroskopiya, v. 21, no. 5, 1966, 538-545

TOPIC TAGS: nitrogen, band spectrum, electron transition, shock wave reflection, radiation intensity, oscillator strength

ABSTRACT: The apparatus described in the first part of the paper (Opt. i spektr. v. 21, 267, 1966) is used to measure the absolute intensity of the group of rotational lines at  $\lambda$  8819.4 Å of the (1, 0) band of the first positive system of nitrogen heated by a reflected shock wave. The test procedure is described in detail. The primary data obtained in each experiment for the initial nitrogen pressure (10 mm Hg), the velocity of the incident shock wave, oscillograms of the radiation intensity, and oscillograms of the radiation intensity of the standard lamp used for calibration, are given. The procedure for determining the strength of the electronic transition and the oscillator strength from the integral radiation intensity is described, and the measured absolute intensities are used to obtain numerical values for the electron transition strength ( $0.089 \pm 0.026$  atomic units) and the oscillator strength ( $0.0028 \pm 0.00098$ ). The registered spectra show convincingly that the second com-

Card 1/2

UDC: 539.194

ACC NR: AF7000024

ponent of radiation in this region is the red band system of the CN present in the shock tube in the form of impurity to the nitrogen. Tables are presented of the intensity factors of the rotational lines. The identification of the second component is due to the use of an electrooptical converter for registering the spectrum. The authors thank A. G. Sviridov for useful advice, P. P. Lazarev for solving the gas-dynamic problem, V. A. Boyko and M. N. Glasko for help with the work, M. I. Pergament for consultation, and M. M. Butslov and co-workers for supplying the electrooptical converter. Orig. art. has: 4 figures, 2 formulas, and 2 tables.

SUB CODE: 20/ SUBM DATE: 05Apr65/ ORIG REF: 003/ OTH REF: 012

2/2

ACC NR: AP7002419

SOURCE CODE: UR/0051/66/021/006/0727/0734

AUTHOR: Dronov, A. P.; Sobolev, N. N.; Fayzullov, F. S.; Boyko, V. A.

ORG: none

TITLE: Determination of the intensity of electron transition in the red cyanogen band system

SOURCE: Optika i spektroskopiya, v. 21, no. 6, 1966, 727-734

TOPIC TAGS: electron transition, cyanogen, electron transition intensity, cyanogen red band, cyanogen spectrum

ABSTRACT: The CN spectrum beyond the front of a reflected shock wave in 50% Co + 50% N<sub>2</sub> was photographed in the near-infrared region of the spectrum using an electron optical converter with an oxygen-cesium cathode. The absolute intensity of emission of the (1.0) CN band was measured using a DFS-33 spectrometer with an oxygen-cesium photomultiplier. The intensity of electron transition  $S_e^{nm} = 0.11$  at. units of the red CN (cyanogen) band system was determined from measurements of absolute intensity. Orig. art. has: 7 figures and 2 tables.

[Translation of authors' abstract]

[SP]

SUB CODE: 20/SUBM DATE: 23Apr65/ORIG REF: 007/OTH REF: 011/

Card 1/1

UDC: 535.33:539.194

-DROHOV, A. YE.

Wine and Wine Making

Novorossiysk winery of the combine "Abram-Diurso. Vin. 1952 no. 6, 1952.

Monthly List of Russian Accessions, Library of Congress, September 1952. UNCLASSIFIED.

ZAYTSEV, A.; DROHOV, K. (Lvov)

Material incentives at state enterprises. Vop. ekon. no. 3:  
59-69 Mr '59. (MIRA 12:5)

(Industrial management)  
(Bomis system)



DRONOV, F.

Introduction of new machinery and bank credit. Den. 1 kred. 21  
no.8:36-39 Ag '63. (MIRA 16:9)  
(White Russia--Technological innovations)  
(White Russia--Credit)

DRONOV, I. A., inzh.; KOGAN, I. V., inzh.

New foreign means of transportation for carrying equipment  
and loads in areas which are difficult to reach. Stroil. i dor.  
mash. 7 no.11:35-38 N '62. (MIRA 16:1)

(Transportation, Automotive)

DRONOV, I. S., Cand Med Sci -- (diss) "Problems of the hygiene of milk supply to large populated areas." Rostov-na-Don, 1960. 16 pp; (Rostov-na-Don State Medical Inst); 300 copies; price not given; (KL, 23-60, 127)

SOV/123-59-14-55098

Translation from: Referativnyy zhurnal. Mashinostroyeniye, 1959, Nr 14, p 86 (USSR)

AUTHORS: Dronov, M., Dmitriyev, V.

TITLE: A Cutting-Off Tool<sup>14</sup> of the M.A. Dronov Design

PERIODICAL: Byul. tekhn.-ekon. inform. Sovnarkhoz Orlovsk. ekon. adm. r-na, 1958, Nr 3, pp 37 - 38

ABSTRACT: The application of a cutting-off tool with a hard alloy plate is reported. The rear edge has a chamfer of 0.3 - 0.5 mm in width, perpendicular to the front edge, which is followed by the rear angle of 2 - 3°. The tests, carried out with center adjustment of the cutting edge when machining steel of the 30 KhGS grade with a speed of approximately 150 m/min and a feed of 0.2 - 1 mm/revolution, showed that the strength could be doubled. One figure.

A.D.L.

Card 1/1

LETOKHOV, V.S.; VATSURA, V.V.; PUKHLIK, Yu.A.; FEDOTOV, D.I.; KOSOZHICHIN,  
A.S.; ZHABOTINSKIY, M.Ye.; DASHEVSKAYA, Ye.I.; KOZLOV, A.N.;  
RUVINSKIY, L.G.; VASIN, V.A.; YURGENEV, L.S.; NOVOMIROVA, I.Z.;  
PETROVA, G.N.; SHCHEDROVITSKIY, S.S.; BELYAYEVA, A.A.; BRYKINA,  
L.I.; GLEBOV, V.M.; ~~DRONOV, M.I.~~; KONOVALOV, M.D.; TARAPIN, V.N.;  
MIKHAYLOVSKIY, S.S.; ZHEGALIN, V.G.; ZHABIN, A.I.; GRIBOV, V.S.;  
MAL'KOV, A.P.; CHERNOV, V.N.; RATNOVSKIY, V.Ya.; VOROB'YEVA, L.M.;  
MILOVANOVA, M.M.; ZARIPOV, M.F.; KULIKOVSKIY, L.F.; GONCHARSKIY,  
L.A.; TYAN KHAK SU

Inventions.. Avtom. i prib. no.1:78-80 Ja-Mr '65.

(MIRA 18:8)

DRONOV, N., inzhener-konstruktor

Better and cheaper. Mest.prom.1 khud.promys. 2 no.3:26-27  
Mr '61. (MIRA 14:4)

1. Rementno-mekhanicheskiy zavod, Moskva.  
(Clothing industry--Equipment and supplies)  
(Conveying machinery)

DRONOV, N. D.

Efficient construction of a sewing-shop conveyor and working positions.  
Leg. prom. 12, No 5, 1952.

DRONOV, N.D.

New pressing [ironing] machines. Leg.prom.15 [i.e.16] no.3:40-42  
Mr '56. (Pressing of garments) (MIRA 9:7)



L 11836-66 EWT(d)/EWT(m)/EWP(w)/EWP(v)/EWP(k)/EWA(h)/ETC(m) IJP(c)

ACC NR: AT6001265 WW/EM/GS

SOURCE CODE: UR/0000/65/000/000/0173/0185

AUTHOR: Dronov, N.P. / 4452

ORG: None

17  
2 + 1

TITLE: Calculation of shells for explosions

SOURCE: Prochnost' i dinamika aviatsionnykh dvigateley (Durability and dynamics of aircraft engines); sbornik statey, no. 2. Moscow, Izd-vo "Mashinostroyeniye", 1965, 173-185

TOPIC TAGS: rupture strength, shell structure dynamics, cylindric shell structure

ABSTRACT: The author presents methods for calculating shells with consideration of fastened ends and a method of calculating long shells under live loads. These calculations are applicable to structures such as tanks and pipelines subject to the effect of rapidly changing pressures, i.e., which are subject to explosive rupture. The first mathematical elaboration pertains to finite cylindrical shells and formulas are derived which can be used for setting up solutions in all cases of loads on a shell subjected to explosive loads. Examples are given where pressure is applied instantaneously and acts on the shell over a certain period of time and then at a certain instant of time the pressure is instantaneously removed. The second portion of the article pertains to an infinitely long cylindrical shell. In this case the displacement of the wall of this shell with an instantaneously applied single Card 1/2

UDC: 62-215.001.24:541.126  
2

L 11836-66

ACC NR: AT6001265

load is found from the solution for a finite shell by means of the limiting process (infinite increase of distance between the ends of the shell). The formulas derived describe deformation of an infinitely long shell as a single load travels over it at supercritical velocities. Orig. art. has: 28 formulas.

SUB CODE: 13 / SUBM DATE: 17Jul65 / ORIG REF: 005

jw  
Card 2/2

DRONOV, N.S.; TROITSKIY, Kh.L., redaktor.

[Mortar-pump mechanic] Motorist rastvoronasosa. [Nauch. redaktor Kh.L. Troitskii] Moskva, Gos.izd-vo lit-ry po stroitel'stvu i arkhitekture, 1953.  
129 p. (MLBA 6:9)

(Pumping machinery)

IOFIN, S.L.; SKHARPETIN, V.V.; DRONOV, N.V.; KOP'YEV, V.Ya.; IVANOV, V.A.

Efficiency of mining systems in mines of the East Kazakhstan Economic  
Region. Gor. zhur. no.7:26-33 J1 '62. (MIRA 15:7)

L. Vsesoyuznyy nauchno-issledovatel'skiy institut tsvetnykh metallov,  
g. Ust'-Kamenogorsk.  
(East Kazakhstan Province—Mining engineering)

DRONOV, N.V.; IOFIN, S.L.; SHKARPETIN, V.V.

Study of the principles of butt ore recovery through a  
slot. Gor. zhur. no.10:27-31 0 '63. (MIRA 16:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy gorno-metallurgicheskoy institut tsvetnykh metallov, Ust'-Kamenogorsk.

BUD'KO, A.V.; KRIVENKOV, N.A.; ARUTYUNOV, K.G.; IOFIN, S.L.; DRONOV, N.V.;  
FOKIN, Yu.N.; CHUGUNOV, L.F.; VERGUS, N.G.; KUTUZOV, D.S.; TEN, N.A.;  
FILIPPOV, N.I.; SHNAYDER, M.F.

Experiences in using the caving system with end drawing of ore.  
Gor. zhur. no.8:22-26 Ag '65. (MIRA 18:10)

1. Institut gornogo dela im. A.A. Skochinskogo (for Bud'ko, Krivenkov, Arutyunov).
2. Vsesoyuznyy nauchno-issledovatel'skiy gornometallurgicheskiy institut tsvetnykh metallov (for Iofin, Dronov, Fokin).
3. Tyrnyauzskiy kombinat (for Chugunov, Vergus).
4. Leninogorskiy polimetallicheskiy kombinat (for Kutuzov, Ten, Filippov, Shnayder).

DRONOV, S.F.

Manufacturing sugar from frozen sugar beets. Sakh. prem. 33 no.1:  
23-28 Ja '59. (MIRA 12:1)

1. Institut gidrelisney promyshlennosti.  
(Sugar beets) (Sugar manufacture)





11B

PROCESSING AND PROPERTY DATA

A simplified method for the determination of vitamin C in hipberries. S.F. Leonov and S. Mankin. *Voprasy Khimii* 8, No. 2, 45 (1969). The dry wt. of hipberries is 34.4-63.2% (45.9% av.) of the fresh wt. The percentage of H<sub>2</sub>O-insol. material is 26.3% of the fresh wt. and 10.6% of the dry wt., and has a sp. vol. and sp. wt. of 0.731 cc. and 1.326 g./cc., resp. The mg. % of vitamin C in a sample will then be  $(0.731 - 0.21) \cdot C \cdot A_1 \cdot A_2 \cdot 100 / 11.4$  g. where g is the g. of sample, C is the cc. of 0.001 N dichlorophenol indophenol required for the titration, A<sub>1</sub> is the normality factor of the indicator and A<sub>2</sub> is the aliquot factor, before titration. S. A. K.

ATM-SEA METALLURGICAL LITERATURE CLASSIFICATION

13000-17000										18000-22000										23000-27000										28000-32000										33000-37000										38000-42000										43000-47000										48000-52000										53000-57000										58000-62000										63000-67000										68000-72000										73000-77000										78000-82000										83000-87000										88000-92000										93000-97000										98000-102000										103000-107000										108000-112000										113000-117000										118000-122000										123000-127000										128000-132000										133000-137000										138000-142000										143000-147000										148000-152000										153000-157000										158000-162000										163000-167000										168000-172000										173000-177000										178000-182000										183000-187000										188000-192000										193000-197000										198000-202000										203000-207000										208000-212000										213000-217000										218000-222000										223000-227000										228000-232000										233000-237000										238000-242000										243000-247000										248000-252000										253000-257000										258000-262000										263000-267000										268000-272000										273000-277000										278000-282000										283000-287000										288000-292000										293000-297000										298000-302000										303000-307000										308000-312000										313000-317000										318000-322000										323000-327000										328000-332000										333000-337000										338000-342000										343000-347000										348000-352000										353000-357000										358000-362000										363000-367000										368000-372000										373000-377000										378000-382000										383000-387000										388000-392000										393000-397000										398000-402000										403000-407000										408000-412000										413000-417000										418000-422000										423000-427000										428000-432000										433000-437000										438000-442000										443000-447000										448000-452000										453000-457000										458000-462000										463000-467000										468000-472000										473000-477000										478000-482000										483000-487000										488000-492000										493000-497000										498000-502000										503000-507000										508000-512000										513000-517000										518000-522000										523000-527000										528000-532000										533000-537000										538000-542000										543000-547000										548000-552000										553000-557000										558000-562000										563000-567000										568000-572000										573000-577000										578000-582000										583000-587000										588000-592000										593000-597000										598000-602000										603000-607000										608000-612000										613000-617000										618000-622000										623000-627000										628000-632000										633000-637000										638000-642000										643000-647000										648000-652000										653000-657000										658000-662000										663000-667000										668000-672000										673000-677000										678000-682000										683000-687000										688000-692000										693000-697000										698000-702000										703000-707000										708000-712000										713000-717000										718000-722000										723000-727000										728000-732000										733000-737000										738000-742000										743000-747000										748000-752000										753000-757000										758000-762000										763000-767000										768000-772000										773000-777000										778000-782000										783000-787000										788000-792000										793000-797000										798000-802000										803000-807000										808000-812000										813000-817000										818000-822000										823000-827000										828000-832000										833000-837000										838000-842000										843000-847000										848000-852000										853000-857000										858000-862000										863000-867000										868000-872000										873000-877000										878000-882000										883000-887000										888000-892000										893000-897000										898000-902000										903000-907000										908000-912000										913000-917000										918000-922000										923000-927000										928000-932000										933000-937000										938000-942000										943000-947000										948000-952000										953000-957000										958000-962000										963000-967000										968000-972000										973000-977000										978000-982000										983000-987000										988000-992000										993000-997000										998000-1002000									
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DRO.OV, S. F.

34055. Dinamicheskaya teoriya izvlecheniya veshch estv diffuzionnyy metodom.  
Sakhar. prom-ct', 1949, No. 11, s. 24-29 - Bibliogr: 9 Nazv. - Prodolzka.  
Nachalo: No. 10

SO: Knizhuaya, Letopis', Vol. 7, 1955

28

CA

Maceration and diffusion method in diffusion battery.  
 S. F. Dronov. *Sobremennaya Prom.* 23, No. 6, 18-21  
 (1949). —The method consists of extg. the sugar from the  
 cassettes in the first 2 or 3 cells without circulation and  
 pressure. This method can be adopted without any  
 changes in the existing battery with increased productivity  
 and efficient results. V. R. Raitov

ASS-SLA METALLURGICAL LITERATURE CLASSIFICATION

12000 SYNOPTIC 100000 WITH ONLY ONE

12000 SYNOPTIC 100000 WITH ONLY ONE

13-3-2

Best connection. A. P. Denny (Sakhar. 1950, No. 8, 23, 24; Sug. Ind. Abstr. 1950, 23, 100).—Factory and laboratory experiments on the use of connection of varying length and thickness, and of flat and grooved connection, are recorded. Flat connection having a greater thickness than grooved connection, facilitate circulation in the battery, but give juice of lower purity than in grooved connection; to reduce this effect to a min., the mean thickness of flat connection should be 3-1.3-1.4 mm. P. S. AMER.

ASB-51A METALLURGICAL LITERATURE CLASSIFICATION

DRONOV, S.F.

About the number of cells for a typical diffusion battery. Sakahranaya  
Prom. 27, No.1, 21-6 '53. (MIRA 6:1)  
(CA 48 no.1:393 '54)

DRONOV, S.F. [author]; LEPESHKIN, inzhener; SILIN, P., professor [reviewers].

"Dynamic theory of the extraction of sugar from beets by the diffusion method." S.F.Dronov. Reviewed by Lepeshkin, P.Silin. Sakh.prom. 27  
no.8:44-47 Ag '53. (MLBA 6:8)

(Sugar industry) (Dronov, S.F.)

DRONOV, S.F.

Importance of intermediate cells in a diffusion battery. Sakh.prom.  
28 no.2:19-21 '54. (MLRA 7:4)

1. Tsentral'nyy nauchno-issledovatel'skiy institut sakharney pro-  
myshlennosti.

(Sugar machinery)



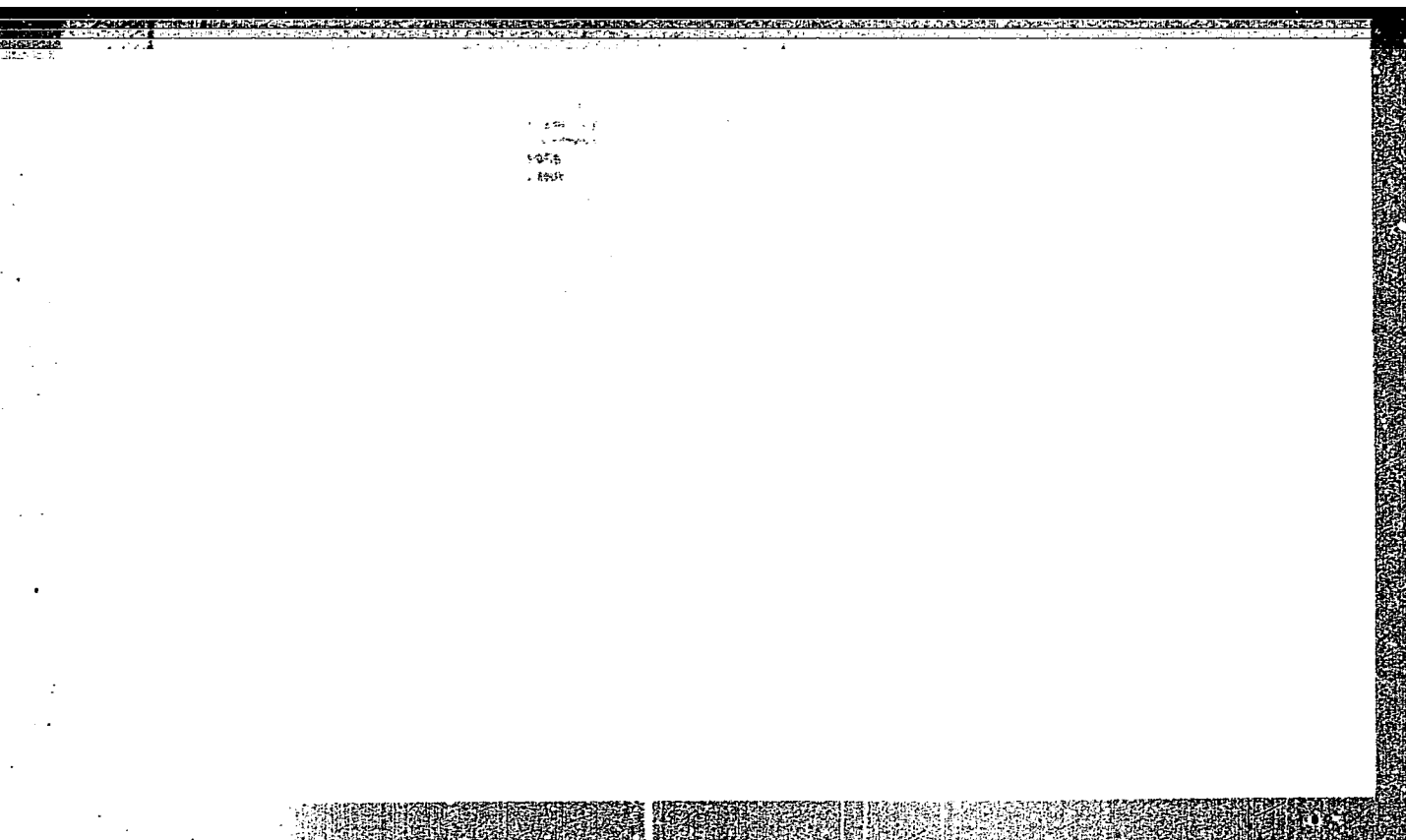
**DRONOV, S.F.**

**Dynamic theory of sugar extraction from beets by the diffusion process. Sakh.prom. 28 no.6:27-30 '54. (MIRA 7:11)**

**1. TSentral'nyy nauchno-issledovatel'skiy institut sakharnoy promyshlennosti.  
(Sugar industry)**

"APPROVED FOR RELEASE: Thursday, July 27, 2000

CIA-RDP86-00513R00041122



APPROVED FOR RELEASE: Thursday, July 27, 2000

CIA-RDP86-00513R00041122

~~DRONOV, S.F.~~

Effect of the speed of diffusion water on the acceleration of sugar  
extraction from beet cossettes and strips. Sakh. prom. 32 no.2:9-14  
P '58. (MIRA 11:3)

1. Tsentral'nyy nauchno-issledovatel'skiy institut sakharney  
promyshlennosti.  
(Sugar manufacture)

DROMOV, S.F.

Increasing output of the diffusion battery. Sakh. prom. 32 no.11:  
7-10 M '58. (MIRA 11:12)

1. Institut gidrolisney promyshlennosti.  
(Sugar manufacture)

DRONOV, S. F., Doc of Tech Sci -- (diss) "Intensification of the Process  
of Coverting Sugar form Beets by Diffusion Method," Moscow, 1959, 18 p  
(Kiev Technological Institute of the Food Industry) (KL, 1-60, 121)

DRONOV, S.F.

Practicability of plant fiber hydrolysis carried as a process  
separate from the extraction of its products. Gidroliz. i lesokhim  
prom. 12 no.7:1-4 '59 (MIRA 13:3)  
(Hydrolysis) (Wood--Chemistry)

DRONOV, S.F.; VASIL'YEVA, K.A.

Refining of raw materials in apparatus with continuous action.  
Gidroliz. i lesokhim.prom. 15 no.114-7 '62.

(MIRA 18:3)

1. Moskovskoye otdeleniye Gosuda stvennogo nauchno-issledovatel'-  
skogo instituta gidroliznoy i sul'fitno-spirtovoy promyshlennosti.

DRONOV, S.F.; VASIL'YEVA, K.A.; PANINA, L.I.; KURILENKO, N.K.; SUROVOVA, O.P.

Low-modulus hemicellulose hydrolysis of plant tissues with a pentose  
hydrolysate. Gidroliz. i lesokhim.prom. 16 no.3:17-19 '63.

(MIRA 16:5)

1. Moskovskoye otdeleniye Gosudarstvennogo nauchno-issledovatel'skogo  
instituta gidroliznoy i sul'fitnospirovoy promyshlennosti  
(Hydrolysis) (Hemicellulose)



DRONOV, V.A., inzh.

The SL-1 machine for cleaving and removing ice. Stroiki dor.  
mashinostr. 4 no.9:3-4 S '59. (MIRA 12:11)  
(Snow removal)

DRONOV, V.A.

Apparatus for mixing and granulation of thermoplastics. Khim.  
prom.[Ukr.] no.1:35-37 Ja-Mr '65. (MIRA 18:4)

KHACHIYAN, A.S., kand. tekhn. nauk; LEKHOVITSEK, M.A., inzh.; LEVIN, Yu.D.,  
inzh.; DRONOV, V.G., inzh.

The GDGA-48 automated engine-generator system with an 80 hp.  
6GCh 12/14 gas motor. Energomashputrenie 11 no.4:28-30  
Ap '65. (MIRA 18:6)

V.I. DRONOV

Card 7/10

Chemistry of Sulphur Organic Compounds (Cont.)	507/5075
Chelbary, R.B., L.B. Goshalova. Kinetics of Transformation of Methylsulphide in the Presence of an Aluminosilicate Solid Catalyst	105
Chelbary, R.B., A.I. Zhurav. Kinetics of Transformation of cis-2,5-Di-n-propylsulphide in the Presence of an Aluminosilicate Solid Catalyst	200
Chelbary, R.B., D.K. Terlov. Kinetics of Hydrogenolysis of n-Butylsulphide in the Presence of a Platinum Catalyst	219
Chelbary, R.B., A.V. Nuzhina. Kinetics of Hydrogenolysis of Methylsulphide in the Presence of an Aluminosilicate-Molybdenum Catalyst	226
Chelbary, R.B., V.D. Pyria. Catalytic Refining of Straight-Run Gasoline by Sulfuric Acid-Soluble Catalysts	239

# Index

From the Editorial Board

INDEX OF CONTENTS

105 English, 5 French, 12 German, and 1 Czech.

and petroleum products; 5) Kinetics of transformation of organic sulfur compounds by hydrogenolysis; 6) Physicochemical properties of organic sulfur compounds. The principal items are mentioned. There are 115 references; of which 179 are Soviet, 126 English, 5 French, 12 German, and 1 Czech.

INDEX OF CONTENTS

From the Editorial Board

INDEX OF CONTENTS

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S/081/62/000/005/037/112  
B151/3101

AUTHORS: Obolentsev, R. D., Dronov, V. I.

TITLE: The kinetics of transformation of some monocyclic sulfides and 2-ethylthiophene in the presence of a globular aluminosilicate catalyst

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 5, 1962, 206, abstract 5Zh56 (Sb., "Khimiya sera- i azotorgan. soedineniy, soderzhashchikhsya v neftyakh i nefteproduktakh" v. 3 Ufa, 1960, 271-294)

TEXT: The kinetics of the transformation of cis- and trans-2,5- dimethyl thiophanes (I), 2-ethylthiophane (II), 2-methyl thia-cyclohexane (III) thiacycloheptane (IV), trans-2,5-di-n-propylthiophane (V) and 2-ethylthiophene (VI) in the presence of a globular aluminosilicate catalyst in a flow system, at atmospheric pressure, is studied. For

I - IV the reaction is carried out at 350 - 450°C and a volume velocity (VV) from 1 to 40 hrs<sup>-1</sup>, for VI at 450-550°C and VV 0.3 - 4 hrs<sup>-1</sup>, at a Card 1/3

S/081/62/000/005/037/112  
B151/B101

The kinetics of transformation of ...


concentration of 0.45% on the sulfur in a  $C_6H_6$  medium. The experiments with V are carried out in cetane, decalin and  $\alpha$ -methyl-naphthalene at 350 - 400°C, at VV from 2.5 to 80 hrs<sup>-1</sup>. The main sulfur-containing product of all the catalytic transformations is H<sub>2</sub>S. The kinetic equations are derived. The dependence of the parameters of these equations on the reciprocal of the absolute temperature is found. The mean velocity of transformation of the monocyclic sulfides depends on their structure and increases with increasing molecular weight. The rate of transformation of 2-alkylthiophanes is lower than that of the isomeric 2,5-dialkylthiophanes. For the isomeric monocyclic sulfides with 5 and 6 membered rings the rates are almost equal, and higher than that for 7 membered rings. With the cis- and trans-isomers of 2,5-dialkylthiophanes the rates are very close together. The difference in the rates of transformation of the monocyclic sulfides is reflected in the composition of the monocyclic sulfides contained in the distilled products from catalytic cracking which enrich in low mol. wt. sulfides and 2-alkylthiophanes at the expense of high mol. wt. sulfides and 2,5-dialkylthiophanes. The desulfuration of petroleum products in the catalytic cracking process depends on their hydrocarbon composition, which

Card 2/3

The kinetics of transformation of ...

S/081/62/000/005/037/112  
B151/B101

is borne out by the different rates of transformation of V depending on the solvent. The aluminosilicate catalyst can be used for getting rid of monocyclic sulfides from their mixtures with thiophenes, the rate of transformation of which is considerably lower, as shown in the case of VI.  
[Abstracter's note: Complete translation.]



Card 3/3

5.3200  
5(3) 5.3300(B)

AUTHORS: Obolentsev, R. D., Dronov, V. I.

47252

SOV/20-130-1-27/69

TITLE: Transformation Kinetics of Some Monocyclic Sulfides on an Aluminosilicate Catalyst

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol 130, Nr 1, pp 98-101 (USSR)

ABSTRACT: The problem mentioned in the title is of importance in connection with the catalytic cracking of petroleum containing much sulfur. With their paper, the authors wanted to close a gap in the respective publications. For this purpose, they used cis- and transisomers of 2,5-dimethylthiophane and 2,5-di-n-propylthiophane, 2-ethylthiophane, 2-n-hexylthiophane, 2-methylthiacyclohexane, thiacycloheptane, and 2-ethylthiophene. A continuously working laboratory apparatus was used for the experiments which were carried out at atmospheric pressure. The volume velocity was between 1 and 80. The sulfides were catalyzed in benzene and some other solvents as 0.45% solutions (computed with respect to sulfur). The catalyst used was an aluminosilicate catalyst with the activity index 33. A sulfur balance was made for each experiment. The authors proved that  $H_2S$  is the most

Card 1/4



Transformation Kinetics of Some Monocyclic  
Sulfides on an Aluminosilicate Catalyst

67852  
SOV/20-130-1-27/69

important sulfur-containing product of the transformations mentioned. The quantity of mercaptane sulfur in the catalyzates does not exceed 2.5% computed with respect to the sulfur content in the initial raw material. The sulfur content in the coke does not exceed 3% of the sulfur in the initial solution. Equations (1) and (2) suggested in a general form by A. V. Frost (Refs 1, 4) and S. A. Kazeyer (Refs 2, 5) were used for the kinetic characteristics of the above transformations. Table 1 shows the characteristic values determined for the kinetic equations of the above substances. Their degrees of transformation were computed in dependence on the contact time at 350, 400 and 450°C. Figure 1 shows such a dependence at 450°C as an example. It shows that the points determined experimentally lie rather exactly on the curves computed. In a short contact time, differences in the average transformation rates of the cyclic sulfides occur. This rate increases with the molecular weight of the sulfide. From this and other differences found, the authors conclude that this phenomenon certainly influences the composition of the cyclic sulfides contained in the distillation products of catalytic cracking. These products are enriched by low-molecular sulfides and 2-alkylthiophanes at the expense of the content in

Card 2/4

Transformation Kinetics of Some Monocyclic  
Sulfides on an Aluminosilicate Catalyst

17 11  
SOT/20-150-1-27/69

high-molecular sulfides and 2,5-dialkylthiophenes. Thus, it was shown that an aluminosilicate catalyst can be used for eliminating monocyclic sulfides from their mixture with thiophenes. The factors of diffusion inhibition computed according to A. Ya. Rozovskiy and V. V. Shchekin (Ref 6) showed that - depending on the grain size of the catalyst - cis-2,5-dimethylthiophane is either transformed in the inner diffusion range or in the transition range. The authors assume that distillates with the lowest sulfur content are produced in cracking in a suspension with a distillate catalyst. Figure 2 shows that trans-2,5-di-n-propylthiophane, dissolved in benzene and  $\alpha$ -methyl naphthalene, is most rapidly transformed. 2,5-di-n-propylthiophane in octane is the slowest to transform. A higher content of isooctylene in the isooctane-isooctylene mixture reduces the transformation intensity of cis-2,5-dimethylthiophane (Fig 3). The degree of desulfurization can be

Card 3/4

Transformation Kinetics of Some Monocyclic  
Sulfides on an Aluminosilicate Catalyst

67952

SOV/20-130-1-27/69

determined from the kinetic characteristics of the sulfide mixtures in petroleum products. The total intensity of transformation of a sulfide mixture follows the rule of additivity (Fig 4). There are 4 figures, 1 table, and 6 Soviet references. ✓

ASSOCIATION: Bashkirskiy filial Akademii nauk SSSR (Bashkiriya Branch of the Academy of Sciences, USSR)

PRESENTED: July 7, 1959, by A. V. Topohiyev, Academician

SUBMITTED: July 6, 1959

Card 4/4

DRONOV, V. I.

Cand Chem Sci - (diss) "Kinetics of transformation of several monocyclic sulfides in the presence of industrial ball alum-silicate catalyst." Ufa, 1961. 11 pp; (Academy of Sciences USSR, Inst of Organic Chemistry imeni N. D. Zelinskiy); 150 copies; price not given; (KL, 7-61 sup, 221)

OBOLENTSEV, R.D., prof., doktor khim. nauk, otv. red.; GLADKOVA, L.K., red.; DRONOV, V.I., red.; KALANTAR, N.G., kand. tekhn. nauk, red.; MIKHEYEV, G.M., red.; POZDEYEV, N.M., kand. fiz.-mat. nauk, red.; KLEYMENOVA, K.F., vedushchiy red.; FEDOTOVA, I.G., tekhn. red.

[Materials of the Scientific Session on Chemistry of Sulfur- and Nitrogen Organic Compounds Contained in Petroleum and Petroleum Products] Materialy Nauchnoy sessii po khimii sera- i azotorganicheskikh soedinenii, soderzhashchikhsia v neftiakh i nefteproduktakh. 5th, Ufa, 1959. Moskva, Gos. nauchno-tekhn. izd-vo nef. i gorno-toplivnoi lit-ry. Vol.4. [Chemistry of sulfur organic compounds contained in petroleum and petroleum products] Khimiia seraorganicheskikh soedinenii, soderzhashchikhsia v neftiakh i nefteproduktakh. 1961. 278 p. (MIRA 14:9)

1. Nauchnaya sessiya po khimii sera- i azotorganicheskikh soedinenii, soderzhashchikhsia v neftiakh i nefteproduktakh. 5th, Ufa, 1959.
2. Bashkirskiy filial AN SSSR, otdel khimii (for Obolentsev). (Petroleum--Analysis) (Sulfur organic compounds)

36538

S/081/62/000/006/070/117  
B149/B108

J.340.

AUTHORS: Obolentsev, R. D., Dronov, V. I.,  
TITLE: The kinetics of the transformation of some monocyclic sulfides  
in the presence of spherical aluminosilicate catalyst  
PERIODICAL: Referativnyy zhurnal. Khimiya, no. 6, 1962, 532, abstract  
6M179 (Sb. "Khimiya seraorgan. soyedineniy soderzhashchikh  
v neftyakh i nefteproduktakh. v. 4", M., Gostoptekhizdat,  
1961, 151 - 159)

TEXT: The experiments were carried out in a laboratory pilot plant of  
flow type, at atmospheric pressure. The study of the kinetics of trans-  
formation of 2-n-hexylthiophane at 350-450°C and duration of contact of  
0.1 - 4 sec showed that the mean rate of transformation of monocyclic  
sulfides increased with the increase in their molecular weights in the  
case of brief contact. The rate of transformation of 2,5-dialkylthiophanes is  
higher than that of the isomeric 2-alkylthiophanes; however, this difference  
tends to decrease with the increase of molecular weight of the thiophanes.  
Unsaturated hydrocarbons lower sharply the rate of transformation of cyclic  
Card 1/2

The kinetics of the transformation ...

S/081/62/000/006/070/117  
B149/B108

sulfides. The study of the kinetics of transformation of a mixture of cis-2,5-dimethylthiophane, 2-ethylthiophane, and 2-methylthiacyclohexane showed that the degree of transformation of the mixture obeys the additive law. Intradiffusion retardation takes place during the transformation of cyclic sulfides in the presence of spherical aluminosilicate catalyst.

[Abstracter's note: Complete translation.]

Card 2/2

SHUYKIN, N.I.; BEL'SKIY, I.F.; BARKOVSKAYA, L.Ya.; DRONOV, V.I.;  
ALALYKINA, L.A.

Synthesis of 2,4- and 2,5- dialkylthiophanes. Izv.AN SSSR.-  
Otd.khim.nauk no.6:1093-1098 '62. (MIRA 15:8)

1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR i  
Institut organicheskoy khimii Bashkirskogo filiala AN SSSR.  
(Thiophene)



DRONOV, V.I.

Cambrian sediments in the central pamirs. Dokl. AN Tadzh. SSR  
6 no.3:30-33 '63. (MIRA 17:4)

1. Upravleniye geologii i okhrany neдр pri Sovete Ministrov  
Tadzhikskoy SSR. Predstavleno akademikom AN Tadzhikskoy SSR  
A.P.Nedzvetskim.

DRONOV, V.I.; LEVEN, E.Ya.; MEL'NIK, G.G.; PASHKOV, B.R.

Stratigraphy of Ordovician sediments in the central Pamirs. Sov.  
geol. 3 no.10:133-136 0'60. (MIRA 13:10)

1. Upravleniye geologii i okhrany nedr pri Sovete Ministrov  
Tadzhikskoy SSR,  
(Pamirs--Geology, Stratigraphic)

3. (5)

AUTHORS:

Dronov, V. I., Kanapetov, S. S., Leven,  
~~et al.~~

SOV/20-127-3-45/71

TITLE:

On the Age of Coals in the East Pamir

PERIODICAL:

Doklady Akademii nauk SSSR, 1959, Vol 127, Nr 3, pp 634-636 (USSR)

ABSTRACT:

The coals mentioned in the title (only deposit: Kurtekinskoye (Ref 2)) were ascribed to the Permian-triassic or rather Permian according to pollen and spores. The authors, however, found out in two-years' investigations that they belong to the Upper Jurassic. The respective sedimentary complex is deposited progressively with angular unconformities on a washed-out Permian and Triassic surface. These two formations are represented by maritime facies, which excludes the presence of coal-bearing sediments. The authors give a summarized cross section of the pre-carboniferous sedimentary masses (Fig 1). This cross section as well as the geological interrelations observed between the sedimentations near the deposit leave no doubt as to the Upper-jurassic age of the coal and the mass containing it. This has sufficiently been confirmed by several classifications of the spore-pollen complex made by the Kurtekinskaya razvedochnaya partiya (Kurtekinskaya Prospecting Team, K. M. Umanskiy). According to

Card 1/2

On the Age of Coals in the East Pamir

SOV/20-127-3-45/71

N. I. Stukalova who made the classifications, the forms disclosed show great similarity to the complex of the Upper Jurassic in North Caucasus and the Fergana Basin. Formerly, *Pagiophyllum* pollen had been mistaken for Permian cordaites. There are 1 figure and 4 Soviet references.

ASSOCIATION: Pamirskaya geologo-razvedochnaya ekspeditsiya (Pamir Geological Prospecting Expedition)

PRESENTED: March 16, 1959, by D. V. Nalivkin, Academician

SUBMITTED: February 25, 1959

Card 2/2

3(0)

AUTHORS:

Dyufur, M. S., Dronov, V. I.,  
Kushlin, B. K.

SOV/26-123-3-40/54

TITLE:

The Triassic Stratigraphy of Southeastern Pamir  
(K stratigrafii triasa Yugo-Vostochnogo Pamira)

PERIODICAL:

Doklady Akademii nauk SSSR, 1958, Vol 123, Nr 3, pp 523-525  
(USSR)

ABSTRACT:

The Pamirskaya ekspeditsiya Tadzhikskogo geologicheskogo upravleniya (Pamir Expedition of the Tadzhik Geological Administration) carried out geological work in southeastern Pamir during recent years. Two parties have collected numerous pelecypods from the gravel-containing, limy suite of the Trias. These two parties were: a. for geological mapping (Mushkol'skaya: Sr. Sh. Danikayev and others, 1955), b. for stratigraphy (Badakhshanskaya: M. S. Dyufur, 1956). According to L. D. Kiparisova these pelecypods belong to the Ladinian Stage of the Middle Trias. Based on studies of several Triassic sections, M. S. Dyufur concluded that there was no interruption in sedimentation at the Permian-Triassic boundary. In 1957 V. I. Dronov and B. K. Kushlin of the Badakhshanskaya party studied the Triassic sections. They have proved by means

Card 1/3

The Triassic Stratigraphy of Southeastern Pamir

SOV/20-123-7-40/54

of fauna that the lower horizons of the gravel-containing, limy suite are Lower and Middle Triassic and divided this suite into 5 packages. The Triassic sediments can be clearly divided into 2 suites according to their lithologic composition. The following classification is proposed by the authors: 1. Kobrigenskaya (gravel-containing, limy suite) suite, and 2. Istyetskaya (Ref 4) sandstone-shale suite. According to the fauna found, the Kobrigenskaya suite embraces sediments from the Lower Triassic up to the Carnian Stage, incl. Its thickness varies between 45 and 170 m. (Footnote: The thick suite of Triassic limestones described by P. D. Vinogradov in Aktyash might be separated independently). The Istyetskaya suite overlies this suite entirely concordantly. A fauna was found only in the lower part of the Istyetskaya suite. This fauna indicates that the earliest beds belong at least to the uppermost parts of the Carnian Stage, if not already to the Upper Triassic Noric Stage. The Istyetskaya suite includes the Noric and Rhaetian Stages of the Upper Trias, since numerous floristic remains, chiefly of Rhaetian age, were found in the upper part of the Istyetskaya suite in Pamir (Ref 4). As a result, it is possible that the very uppermost parts of this suite belong to the Lias.

Card 2/3

The Triassic Stratigraphy of Southern Tadzhikistan

SON/20-123-3-40/54

The Istykskaya suite is overlain by thick sandstones and conglomerates of the Idra and also by Middle and Upper Jurassic sediments. The thickness of the Istykskaya suite is 600-1000 m and attains 1500 m in the Namur-Dara Oshir. The difference in the thicknesses of both suites is striking and leads to the supposition of an interruption in sedimentation during the Trias. The same phenomenon is known in the Himalayas. Although the small thickness of Lower and Middle Triassic sediments indicates a marked retardation of subsidence in southeastern Tadzhikistan at this time (apparently for the entire central Asiatic branch of Tetis) the marine conditions were not interrupted. There are 6 references, 5 of which are Soviet.

ASSOCIATION: Upravleniye geologii i otkrytiy nefti i Sovetskii Minister Tadzhikskoy SSR (Administration for Geology and the Preservation of Mineral Wealth of the Council of Ministers of Tadzhikskaya SSR) Leningradskiy gosudarstvennyy universitet im. A. A. Zhdanova (Leningrad State University imeni A. A. Zhdanov)

PRESENTED: June 28, 1958, by D. V. Nalivkin, Academician

SUBMITTED: June 26, 1958

Card 3/3

DRONOV, V.I.; LEVEN, E.Ya.

Geology of the southeastern Pamirs. Sov.geol. 4 no.11:21-36  
N '61. (MIRA 14:11)

1. Upravleniye geologii i okhrany nedr pri Sovete Ministrov  
Tadzhikskoy SSR.

(Pamirs--Geology)



DRONOV, V.I.

Bartang complex. Sov.geol. 6 no.3:142-147 Mr '63. (MIRA 16:3)

1. Upravleniye geologii i okhrany nedr pri Sovete Ministrov  
Tadzhikskoy SSR.

(Pamirs—Geology, Stratigraphic)

L 09054-67

ACC NR: AP6031044

SOURCE CODE: UR.0146/66/009/004/0105/0110

AUTHOR: Dronov, V. V.; Lyubinov, Yu. V.

38

ORG: Leningrad Electrotechnical Institute im. V. I. Ul'yanov-Lenin (Leningradskiy elektrotekhnicheskiy institut)

TITLE: Modulation of radiant flux with two grids

SOURCE: IVUZ, Priborostroyeniye, v. 9, no. 4, 1966, 105-110

TOPIC TAGS: pulse code modulation, radiant flux, electron grid, communication coding

ABSTRACT: An analytical investigation of the nature of modulated radiant flux has been carried out with the aid of two grids or rasters. Modulation with two grids opens great prospects for processing and transmitting coded information in comparison with the electron flux modulation of a single grid or raster. The paper was recommended by the Department of Automatic Control System. Orig. art. has: 1 figure and 1 formula. [Based on authors' abstract]

SUB CODE: 17/ SUBM DATE: 23Oct65/ ORIG REF: 001/

Card. 1/1 net

UDC: 635.8

L 44149-66 EWT(d)/EWT(m)/T/EWP(f) DJ

ACC NR: AP6030263

SOURCE CODE: UR/0147/66/000/003/0137/0140

AUTHOR: Dronov, Yu. V.

ORG: none

TITLE: Effect of grid installation on the reduction of hydraulic losses in composite piping

SOURCE: IVUZ. Aviatsionnaya tekhnika, no. 3, 1966, 137-140

TOPIC TAGS: jet engine, jet engine hydraulic system

ABSTRACT: The pressure of sudden constrictions, expansions, and turns in the piping of a jet engine<sup>2</sup> results in a considerable pressure drop during the flow of a fluid.// Installation of a wire grid in front of the piping section with a high hydraulic resistance<sup>2</sup> (see Fig. 1) was found to reduce pressure losses considerably. To obtain this effect, however, the grid must be selected experimentally for each individual case. The use of a grid also improves the stability of the hydraulic system. A grid made of wire 0.35 mm in diameter with 1 x 1 mesh was found to be most effective. The average reduction in pressure drop amounted

Card 1/2

UDC: 532.5.12 + 532.559.8

I. 41149-65

ACC NR: AP6030263

0

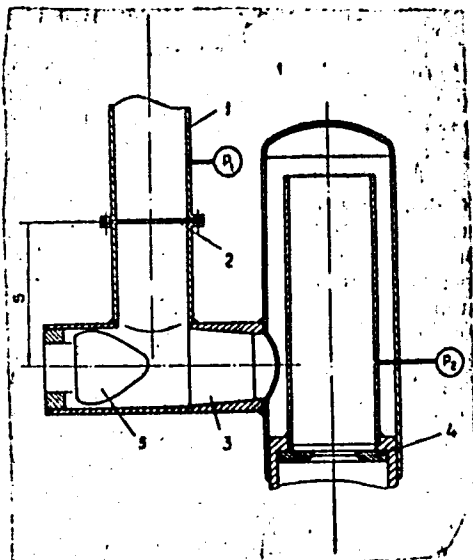


Fig. 1. Grid arrangement

1 - Inlet piping; 2 - grid;  
3 - test section; 4 - throttle  
orifice;  $P_1$  and  $P_2$  - pressure gages;  
5 - cone.

to  $8 \cdot 10^5$  n/m<sup>2</sup>. The theoretical basis for the positive effect of the grid is given. Orig. art. has: 1 figure and 1 table. [AS]

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LYSENKO, V.G., kand. 1st. nauk; EPSHTEYN, A.I., kand. 1st. nauk;  
CHIRKOV, N.P., kand. 1st. nauk; KIYAN, Ye.A., kand. 1st.  
nauk; PLUGATAREV, P.G., kand. 1st. nauk; POBEDINA, Ye.N.,  
kand. 1st. nauk; DRGNOVA, A.I., kand. 1st. nauk; BLOKH,  
B.A., kand. 1st. nauk; VORONINA, V.M., red.; LIMANOVA,  
M.I., tekhn. red.

[Outline history of the Kharkov Tractor Plant, 1931-1961]  
Ocherk istorii Khar'kovskogo traktornogo zavoda im. Ordona,  
1931-1961. Khar'kov, Khar'kovskoe knizhnoe izd-vo, 1962. 296 p.  
(Kharkov--Tractor industry) (MIRA 16:6)

DROMOVA, G.N., inzh.; YEVSTROP'YEV, K.S., doktor khimich. nauk

Electric properties of SVAM-type glass plastic. Elektrotehnika  
36 no.5:37-39 My '65.  
(MIRA 18:5)

AP7008667

AUTHOR: Dronova, G. N.; Yovstrop'yov, K. S.

SOURCE CODE: UR/0153/66/009/006/0938/0942

ORG: Department of Glass Technology, Leningrad Technological Institute im. Lensovet  
(Kafedra tekhnologii stakla, Leningradskiy tekhnologicheskii institut)

TITLE: Dielectric parameters of anisotropic fiberglass-reinforced plastics containing epoxy-phenol binders

SOURCE: IVUZ. Khimiya i khimicheskaya tekhnologiya, v. 9, no. 6, 1966, 938-942

TOPIC TAGS: fiberglass, reinforced plastic, epoxy resin, resistivity, dielectric constant, dielectric loss

ABSTRACT: The resistivity  $\rho_v$ , dielectric loss  $\tan \delta$  and permittivity  $\epsilon$  of type SVAM fiberglass-reinforced materials at 50 cycles were measured on flat specimens 25x25x2 mm with an R-525 high-voltage bridge. At  $10^3$  and  $10^4$  cycles,  $\tan \delta$  and  $\epsilon$  were measured on an MLYe-1 instrument, and at  $10^5$ ,  $10^6$  and  $10^7$  cycles with a KV-1 Q-meter. To determine the influence of the properties of the components on the dielectric characteristics, the quantities  $\rho_v$ ,  $\tan \delta$  and  $\epsilon$  at  $10^6$  cycles of standard alkali-free glass, ED-6 epoxy resin (cured with K-17 phenol formaldehyde resin) and an SVAM material consisting of this glass and resin were measured. It was found that the dielectric characteristics of the SVAM material were determined by the properties of both components and that a decisive part is played by the binder.  $\rho_v$ ,  $\tan \delta$  and  $\epsilon$  of the reinforced

Card 1/2

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material can be calculated from  $\rho_v$ ,  $\tan \delta$  and  $\epsilon$  of the components. There is a distinct quantitative influence of air inclusions on  $\epsilon$  in the SVAM material studied. As the temperature rises,  $\tan \delta$  and  $\epsilon$  of SVAM increase at  $10^3$ - $10^7$  cycles, so that their insulating properties decrease. The insulating properties of SVAM are impaired in a moist atmosphere; however, following the action of moisture, it is equivalent to fiberglass-reinforced plastics used for electric insulation. Orig. art. has: 5 figures and 2 tables.

SUB CODE: 11/  
20/ SUM DATE: 30Mar65/ ORIG REF: 003

Card 2/2

SHCHELOCHKOVA, S.P.; MAKARTSEVA, T.V.; GARSHIN, Ye.A.; MOISEYEVA, Ye.I.;  
BLAGODAROVA, T.N.; MAKAROVA, L.I.; MEL'NIKOVA, R.M.; REVIZOVA, V.Ye.;  
YUSHKEVICH, G.I.; YEVPRYNTSEVA, Z.A.; GALIYAMOVA, M.F.; ~~DRONOVA, L.M.~~  
SALIKOVA, V.N.; KONNOV, F.Ya., red.; ANTONOV, V.P., tekhn.red.

[Economy of the province and city of Kuybyshev; a statistical  
manual] Narodnoe khoziaistvo Kuibyshevskoi oblasti i goroda Kuibysheva;  
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(MIRA 11:3)

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compounds of various classes. Dokl. AN SSSR 143 no.3:737-740  
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EMANUEL', N.M.; DRONOVA, L.M.; KONOVALOVA, N.P.; MAYZUS, Z.K.;  
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Antileukemic effect of 2,6-di-tert.-butyl-4-methylphenol  
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